

## A BEVERAGE DRINKING CONTAINER HOLDER AND RELATED METHODS

### BACKGROUND

[1] Beverage drinking containers, such as cups, holding hot and cold 5 beverages, such as coffee, hot or iced tea or cocoa, can be uncomfortable, and possibly even dangerous, to hold. One reason for this is that beverage drinking containers, particularly those used by specialty coffee shops, tend to have relatively thin sides that tend to allow much heat to flow between the inside of the beverage drinking container and the outside of the beverage drinking container.

10 When these types of beverage drinking containers hold a hot beverage, the heat tends to flow from the beverage inside the beverage drinking container toward the outside of the beverage drinking container, and can excessively heat one's fingers while holding such beverage drinking containers. When these types of beverage drinking containers hold a cold beverage, the heat tends to flow from the outside 15 of the beverage drinking container toward the beverage inside the beverage drinking container, and can excessively chill one's fingers while holding such beverage drinking containers. In addition, condensation may form on the outside of the beverage drinking container, which can make the beverage drinking container slippery and thus easily dropped.

20 [2] Various approaches to remedying this problem have included double cupping, encircling the cup with relatively stiff cardboard rings that one grasps to hold the cup and beverage, and encircling the cup with a napkin to hold the cup and beverage. Double cupping involves placing the hot or cold beverage in a cup and then placing the cup within a second cup that one grasps to hold the 25 beverage.

[3] Unfortunately, these approaches have been less than fully satisfactory. Double cupping can be wasteful and expensive because two cups are used to hold the hot or cold beverage instead of one. Relatively stiff cardboard rings and napkins tend not to stay on the cup when one sets the cup down, can cover 30 advertising, identifying marks or other desirable information printed on the cup, and may generally not provide a desirable feel.

[4] Accordingly, there is a need for an improved beverage drinking container holder that provides a desirable feel while reducing the flow of heat to or from one's hand to protect one's hand from being excessively heated or chilled by the beverage in the beverage drinking container. The present invention provides 5 these and other advantages.

## SUMMARY

[5] The present invention comprises beverage drinking container holders comprising an expandable, flexible net having low thermal conductivity that 10 reduces the flow of heat to or from one's hand when used to hold a beverage drinking container, such as a thin-walled cup, having a hot or cold liquid. The net forms a ring sized to encircle the beverage drinking container, and is preferably expandable and flexible to fit many different cups having different sizes and shapes. For example, the net may be greatly expanded, reconfigured, formed 15 and/or shaped to fit a wide variety of beverage drinking container sizes with a single net and to fit over or around additions to the beverage drinking container, if desired, such as a handle. Accordingly, the net can be easily opened and slipped around a coffee cup to provide a non-slip, comfortable holder that can cover a portion of the cup or the entire cup.

20 [6] The nets are advantageous for at least one of several reasons. For example, the nets create an insulating space between a user's hand and the side of the beverage drinking container to protect the user's hand from the heat or cold of the liquid inside the beverage drinking container and simultaneously allows some heat to escape the cup so that the user can obtain some sensory 25 information about the temperature of the liquid inside the beverage drinking container. Thus, the net reduces the possibility of one drinking a liquid that is too hot. The net also allows the user to see the side of the beverage drinking container so that information, such as identifying logos and/or advertising, on the side of the beverage drinking container remains visible. In addition, because the 30 net typically expands to substantially encircle a beverage drinking container, the

net may include at least two different insignias wherein at least one of the insignias is visible at different times. For example, one insignia may be substantially visible when the net is substantially fully contracted and another insignia may be substantially visible when the net is expanded. Also, many nets

5 may be easily stored and packaged in tight, small configurations for more efficient displaying and shipping.

[7] The net typically includes strands of a substantially non-thermally conductive material and is further preferably lightweight and inexpensive. If desired, the net may be made of plastic, such as expanded polystyrene, 10 organically recyclable products, such as corrugated paper, or other, preferably lightweight, materials having the desired low thermal conductivity. The net is typically made of one-piece construction, although this is not required, and the net may be made of a single material or multiple materials as desired.

[8] In one aspect of the invention, the net includes about 40 strands that are 15 each about 0.05 to 0.25 inches thick, for example 0.1 to 0.15 inches thick or 0.125 inches thick, and the net may fully expand to form a ring having a diameter that is about three times or more the diameter of the ring formed by the net when it is fully contracted. In some embodiments, the fully expanded diameter is 6 inches. In other embodiments, the number of strands may be greater than or less than 40; 20 each strand may be greater than or less than 0.125 inches thick; the diameter of the ring formed by the net when the net is fully expanded may be greater than or less than three times the diameter of the ring formed by the net when it is fully contracted; and the fully expanded diameter may be greater than or less than 6 inches, for example as small as 3 inches or less and as large as 12 –18 inches or 25 more. Furthermore, the net may be sized to cover a portion of the beverage drinking container or the entire beverage drinking container as desired.

[9] In another aspect, at least the inner surface of the net is configured to easily slide onto the container and then to substantially stick to the container when substantially encircling the container. This may be achieved, for example, by 30 making the nets of a slightly tacky or sticky plastic or other suitably tacky or sticky material, or by using a desired adhesive to attach the net to the beverage drinking container. This allows one to more securely grip the beverage drinking container.

[10] In another aspect, the beverage drinking container holder further comprises an insignia, which may be a logo, advertising, printings, designs, text, and/or other desired forms of expressing information. The net may include one or more insignias as desired that may be visible when the net is closed, when the net is 5 open, or both. For example, the net may contain a first insignia that is visible when the net is fully contracted and a second insignia that is visible when the net is expanded. Furthermore, the first insignia may not be visible when the net is expanded.

[11] Certain embodiments include a handheld beverage drinking vessel that 10 comprises a beverage drinking container encircled by a beverage drinking container holder as discussed herein, with or without insignia. In some embodiments, the methods comprise applying the net to the beverage drinking container, and/or drinking from the beverage drinking container using the net to protect one's hand.

15 [12] In addition, the present invention provides a protector comprising an expandable, flexible net potentially having low thermal conductivity and sized to substantially ensconce a fragile item, which may be a non-organic item, to protect the fragile item by absorbing a force generated by contact with another object or otherwise. The net forms a ring sized to substantially ensconce the fragile item, 20 and is expandable and flexible to fit many different items having different sizes and shapes. For example, the net may be greatly expanded, reconfigured, formed and/or shaped to fit eggs, bottles, such as wine and liquor bottles, wine glasses, china plates, and any other desired fragile item. Accordingly, the net can be easily opened and slipped around a fragile item to protect the item. Also, the 25 present invention comprises such fragile items substantially ensconced in such protectors.

[13] These and other aspects, features and embodiments are set forth within this application, including the following Detailed Description and attached drawings. Unless expressly stated otherwise or clear from the context, all 30 embodiments, aspects, features, etc., can be mixed and matched, combined and permuted in any desired manner.

## BRIEF DESCRIPTION OF THE FIGURES

[14] FIG. 1 is a perspective view of a beverage drinking vessel substantially encircled by a net according to an embodiment herein.

[15] FIG. 2 is a side view of the beverage drinking container holder in FIG. 1, 5 according to an embodiment herein, shown in a substantially fully contracted state.

[16] FIG. 3 is a perspective view of a protector encircling a fragile item, according to another embodiment herein.

## 10 DETAILED DESCRIPTION

[17] FIG. 1 is a perspective view of one embodiment of a handheld beverage drinking vessel 10. The vessel 10 includes a beverage drinking container 12 configured to contain a hot or cold beverage and a beverage drinking container holder 14 in the form of a net 16 that reduces the flow of heat to or from one's 15 hand when grasped to hold the beverage drinking container 12. By reducing the flow of heat to or from one's hand when a hot or cold beverage is contained in the beverage drinking container 12, the beverage drinking container holder 14 protects one's hand from being excessively heated or chilled. The beverage drinking container 12 may be a paper coffee cup like those typically provided by 20 coffee shops or cafes, or any other type of beverage drinking container. The beverage drinking container holder 14 includes an expandable, flexible net 16 having low thermal conductivity and sized to encircle the beverage drinking container 12. Because the net 16 is expandable and flexible, the net 16 (shown expanded in FIG. 1) may be sized to fit many different beverage drinking 25 containers having different sizes and shapes. In addition, the net 16 may be sized to allow one to grasp the net 16, and thus the beverage drinking container 12, with four fingers. Accordingly, the net 16 may be easily expanded and slipped around the beverage drinking container 12 to provide a non-slip, comfortable, protective holder.

[18] The net 16 may include strands 18 sized and spaced apart as desired, and may be formed into any desired shape to correspond with the shape of the beverage drinking container 12. For example, in some embodiments, the net 16 may be formed into a ring (shown in FIG. 1) to hold the beverage drinking

5 container 12, and may include 60 strands 18 that are each about 0.125 inches thick. The strands 18 may be spaced apart such that when the net 16 is fully expanded adjacent, parallel strands 18 are approximately 0.25 inches apart; other spacings are possible as desired. When fully expanded, the net 16 may be formed into a ring having a diameter that is about three times the length of the

10 diameter of the ring formed by the net 16 when it is substantially fully contracted (shown in side view in FIG. 2). For example, the diameter of a ring that is formed when the net 16 is fully expanded may be 6 inches. In other embodiments, the number of strands 18 may be greater than or less than 60; each strand 18 may be greater than or less than 0.125 inches thick; the diameter of a ring that may be formed by the net 16 when the net 16 is fully expanded may be greater than or

15 less than three times the diameter of a ring that may be formed by the net 16 when the net 16 is fully contracted; and the diameter of a ring that may be formed by the net 16 when the net 16 is fully expanded may be greater than or less than 6 inches, for example 2 – 18 inches.

20 [19] Still referring to FIG. 1, the net 16 may be made of any desired material having a low thermal conductivity and/or other desired characteristics. For example, in some embodiments, the net 16 made be a one-piece construction, although this is not required, and may be made of polystyrene. In other embodiments, the net 16 may be made of any other desired material having a

25 desired low thermal conductivity, such as other plastics and corrugated paper.

[20] Still referring to FIG. 1, the beverage drinking container holder 14 may also include an insignia 20, such as a logo, advertising, printing, design, text, and/or other desired forms of expressing information, to express any desired information. For example, in some embodiments, the insignia 20 may be printed in a region 22

30 of the net 16 where portions of the insignia 20 may be printed on strands 18 such that the insignia is visible when the strands 18 are held together (for example, in abutment). The region 22 and insignia 20 are shown separate from the net 16 for

clarity. Furthermore, in some embodiments, the beverage drinking container holder 14 may include a first insignia (24 in FIG. 2) that is visible when the net 16 is fully contracted (shown in FIG. 2), and a second insignia 20 that is visible when the net 16 is expanded. In other embodiments, the beverage drinking container holder 14 may include an insignia 20 that is visible when the net 16 is substantially fully contracted, but is not visible when the net 16 is expanded. Because the beverage drinking container holder 14 includes a net 16 that may be expanded to substantially encircle the beverage drinking container 12, when used, the beverage drinking container holder 14 may not cover an insignia (not shown) that is on the beverage drinking container 12. Thus, when using the beverage drinking container holder 14, the insignia 20 as well as an insignia on the beverage drinking container 12 may be visible.

[21] The net 16 is configured to receive the beverage drinking container 12 or other item as desired. In some embodiments, the net is sized and shaped to fit a particular item, such as a wine glass or other stemware, a plate, a vase, or an egg (see FIG. 3). If the beverage drinking container 12 is not within a range of sizes suitable for the net 16 to encircle, then one obtains another beverage drinking container holder 14 including an appropriate smaller or larger net 16. Next, one forms the net 16 into a shape that corresponds with the shape of the beverage drinking container 12. If the beverage drinking container 12 has a circular shape, then one forms the net 16 into a ring. Next, one expands the net 16 to encircle the beverage drinking container 12, although expanding the net may not be required when the net can encircle the beverage drinking container in an unexpanded state. With the beverage drinking container 12 encircled by the net 16, one may now grasp the net to hold the beverage drinking container 12. In some embodiments, the beverage drinking container holder 14 may include, on at least, and in certain embodiments only, the inner surface of the holder 14, an adhesive on a strand 18 of the net 16 that may be used to attach the net 16 to the beverage drinking container 12. The inner surface of the net is thus preferably configured to easily slide onto the container and then to substantially stick to the container when substantially encircling the container. This may be achieved, for example, by making the nets of a slightly tacky or sticky plastic or other suitably

tacky or sticky material, such as a desired adhesive. This may be desirable to help keep the net 16 with the beverage drinking container 12, particularly when the net 16 is not expanded or slightly expanded to encircle the beverage drinking container 12.

5    [22] FIG. 2 is a perspective view of the beverage drinking container holder 14 in FIG. 1, according to an embodiment of the invention, shown in a fully contracted state. In the fully contracted state, each strand 18 contacts its adjacent strands 18. As discussed in conjunction with FIG. 1, the beverage drinking container holder 14 may include an insignia 24 that is visible when the net 16 is fully 10 contracted and may or may not be visible when the net 16 is expanded.

[23] FIG. 3 is a perspective view of a protector 26 encircling a fragile item 28, a wine glass, according to another embodiment of the invention. The protector 26 is similar to the beverage drinking container holder 14 (FIG. 1). The protector 26 includes an expandable, flexible net 30, may have low thermal conductivity, and 15 sized to substantially ensconce the fragile item 28. The net 30 protects the fragile item 28, for example, by absorbing forces generated by contact with another object (not shown). The net 30 forms a ring sized to substantially ensconce the fragile item 30, and is expandable and flexible to fit many different items having different sizes and shapes. For example, the net 30 may be greatly expanded, 20 reconfigured, formed and/or shaped to fit, eggs, bottles, such as wine and liquor bottles, wine glasses, china plates, and any other desired fragile item. In certain embodiments, the net 30 is pre-shaped to fit a wine glass or other stem ware or glass ware, a vase, an egg, a plate, a bowl, or other fragile items, both organic and non-organic. In certain embodiments, the net is not configured to fit organic 25 items such as produce.

[24] Other embodiments comprise methods for holding a beverage drinking container comprising encircling the container with an expandable, flexible net as discussed herein and grasping the net to hold the container. The methods also comprise protecting a fragile non-produce item comprising encircling or 30 ensconcing the fragile item with an expandable, flexible net as discussed herein. The encircling or ensconcing can include expanding the net and, either before or after placing the net on the container, placing a hot or cold liquid in the container;

the methods can further comprising drinking the liquid. In some embodiments the methods comprise attaching the net to the beverage drinking container, for example via use of an adhesive, or displaying an insignia on the container or the net, either or both when the net is substantially fully contracted or expanded.

5 [25] The methods can also comprise making a net as discussed herein comprising forming an expandable, flexible net having low thermal conductivity and sizing the net to fit at least one of a handheld beverage drinking container and a fragile item. In some embodiments, the methods further comprise placing at least one insignia on the net.

10 [26] All terms used herein are used in accordance with their ordinary meanings unless the context or definition clearly indicates otherwise. Also unless indicated otherwise, except within the claims, the use of "or" includes "and" and vice-versa. Non-limiting terms are not to be construed as limiting unless expressly stated, or the context clearly indicates, otherwise (for example, "including," "having," and 15 "comprising" typically indicate "including without limitation"). Singular forms, including in the claims, such as "a," "an," and "the" include the plural reference unless expressly stated, or the context clearly indicates, otherwise.

[27] The scope of the present systems and methods, etc., includes both means plus function and step plus function concepts. However, the terms set forth in this 20 application are not to be interpreted in the claims as indicating a "means plus function" relationship unless the word "means" is specifically recited in a claim, and are to be interpreted in the claims as indicating a "means plus function" relationship where the word "means" is specifically recited in a claim. Similarly, the terms set forth in this application are not to be interpreted in method or 25 process claims as indicating a "step plus function" relationship unless the word "step" is specifically recited in the claims, and are to be interpreted in the claims as indicating a "step plus function" relationship where the word "step" is specifically recited in a claim.

[28] From the foregoing, it will be appreciated that, although specific 30 embodiments have been discussed herein for purposes of illustration, various modifications may be made without deviating from the spirit and scope of the

discussion herein. Accordingly, the systems and methods, etc., include such modifications as well as all permutations and combinations of the subject matter set forth herein and are not limited except as by the appended claims.